Lab Farm 2

Inias Somers
Seppe De Beule
Sam Van Bogaert
Raymond Mohammad
Gilian Sterckx
Kevin Van de Vyver

Taakverdeling

- Seppe De Beule   ⇨ Plant Conditioning   ⇨ Web Dashboard

- Sam Van Bogaert   ⇨ Plant Conditioning   ⇨ Sensoren

- Inias Somers   ⇨ Plant Robot   ⇨ PCB

- Kevin Van de Vyver   ⇨ Plant Robot   ⇨ Constructie

- Raymond Mohammad   ⇨ Project Manager   ⇨ API

- Gilian Sterckx   ⇨ Camera   ⇨ Beeldherkenning

Burndown chart
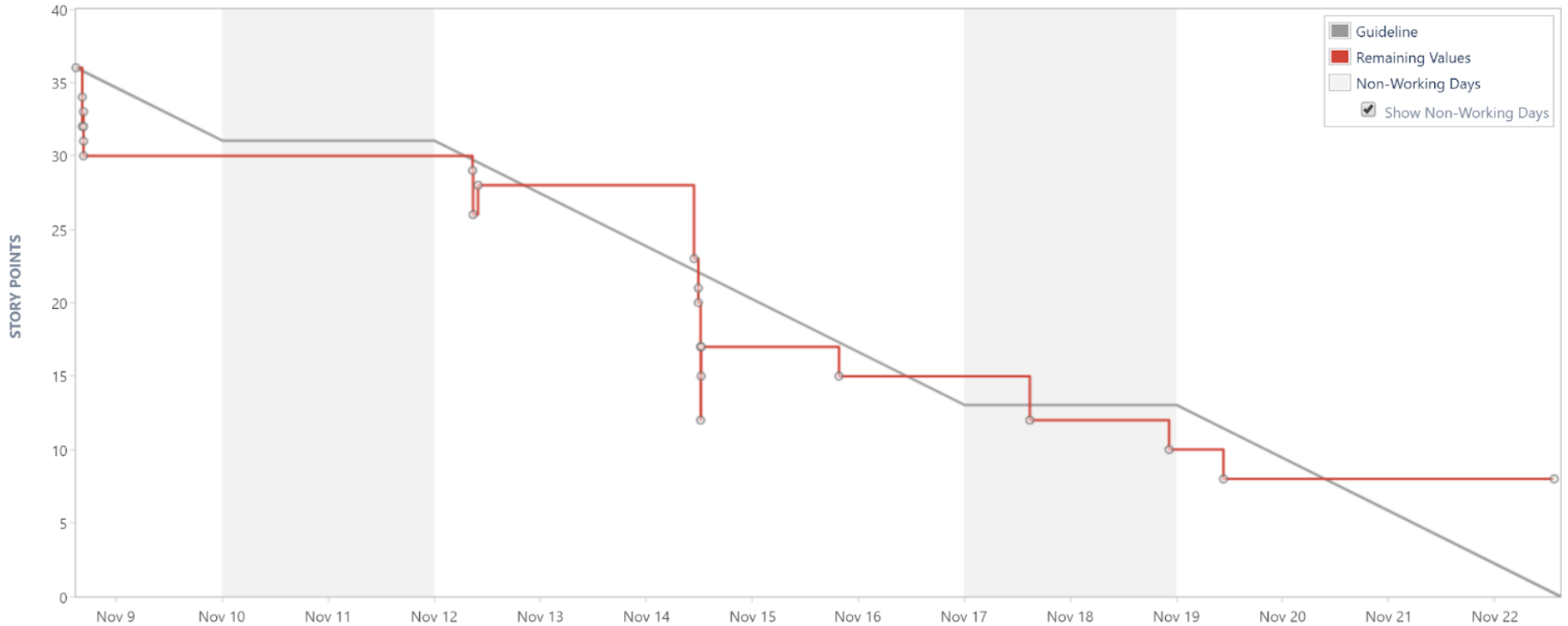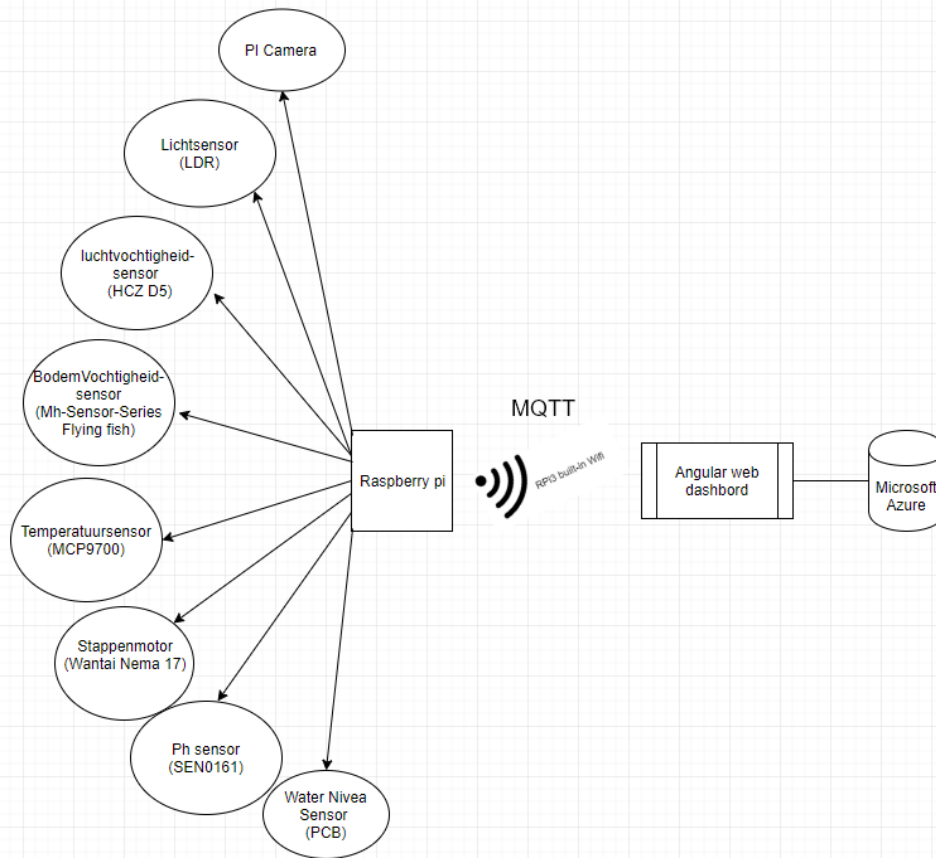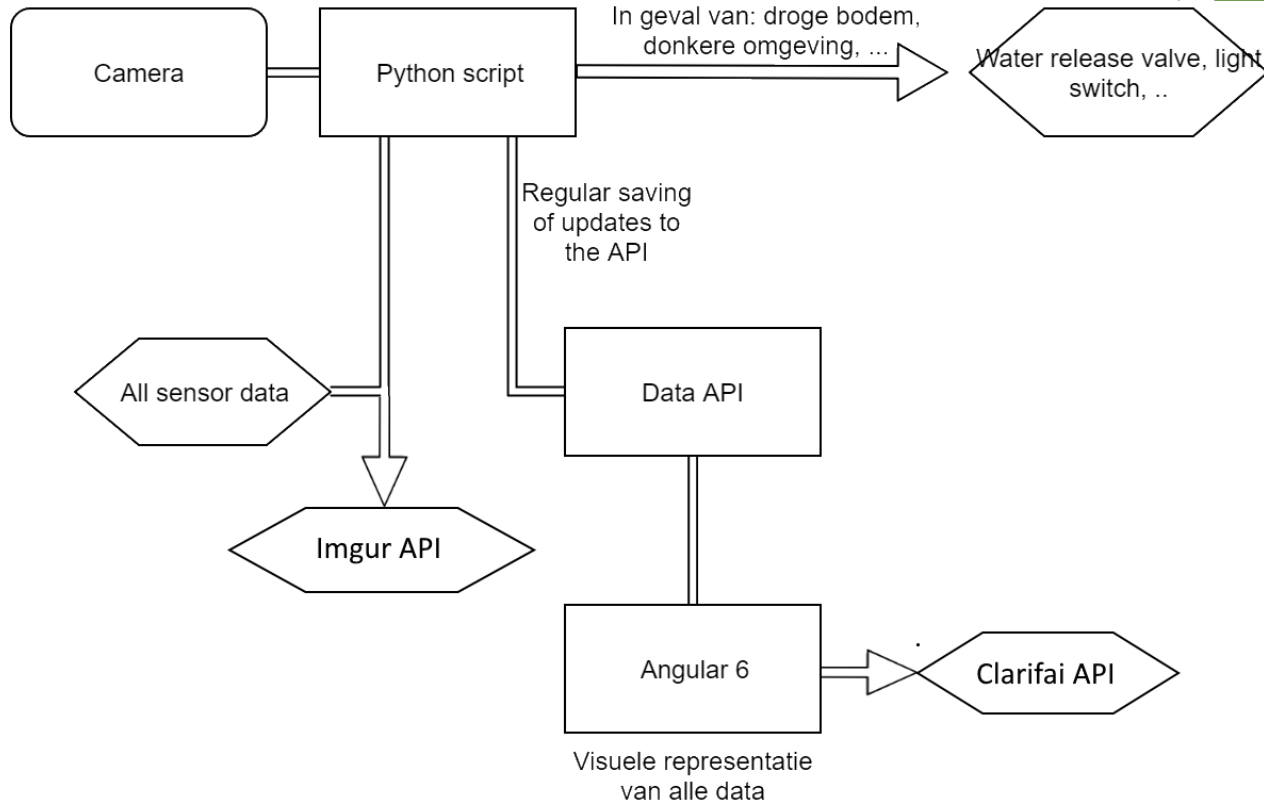
Afgewerkte stories

Completed Issues

View in Issue navigator

Key	Summary	Issue Type	Priority	Status	Story Points (36)
IOT18LF2-2	As a user I want to know the temperature around the plant	Story	↑ Medium	DONE	2
IOT18LF2-11 *	As a user I want to know the pH value of the soil of the plant	Story	↑ Medium	DONE	2
IOT18LF2-16	As a user I want to know if my plant is growing healthy or not (image recognition)	Story	↑ Medium	DONE	5
IOT18LF2-25	As a user I want to know the temperature of the soil of the plant	Story	↑ Medium	DONE	2
IOT18LF2-30	As a user I want an easy overview of the most important data	Story	↑ Medium	DONE	3
IOT18LF2-40 *	As a user I want to know how the temperature sensor works	Story	↑ Medium	DONE	1
IOT18LF2-41	As a user I want to know how the humidity sensor works	Story	↑ Medium	DONE	1
IOT18LF2-42	As a user I want to know how the luminosity sensor works	Story	↑ Medium	DONE	1
IOT18LF2-43	As a user I want to know how the pH sensor works	Story	↑ Medium	DONE	1
IOT18LF2-46	As a user I want to know if the dashboard connects properly	Story	↑ Medium	DONE	1
IOT18LF2-65	As developer i want to create the first electrical schematic	Story	↑ Medium	DONE	2
IOT18LF2-78	As a developer, I want to have the dashboard connected to the API	Story	↑ Medium	DONE	3
IOT18LF2-79	as developer i want to design how to charge the backup battery	Story	↑ Medium	DONE	2
IOT18LF2-80	As a developer, I want to design the gears to move the watersupply in 3D	Story	↑ Medium	DONE	5
IOT18LF2-83 *	As developer i want to calculate the power requirments	Story	↑ Medium	DONE	3
IOT18LF2-84 *	As developer i want to add all components in multisim/ultiboard	Story	↑ Medium	DONE	2

Algemene architectuur

Software diagram

Camera

Python script

In geval van: droge bodem, donkere omgeving, ...

Water release valve, light switch, ..

Regular saving of updates to the API

All sensor data

Data API

Imgur API

Angular 6

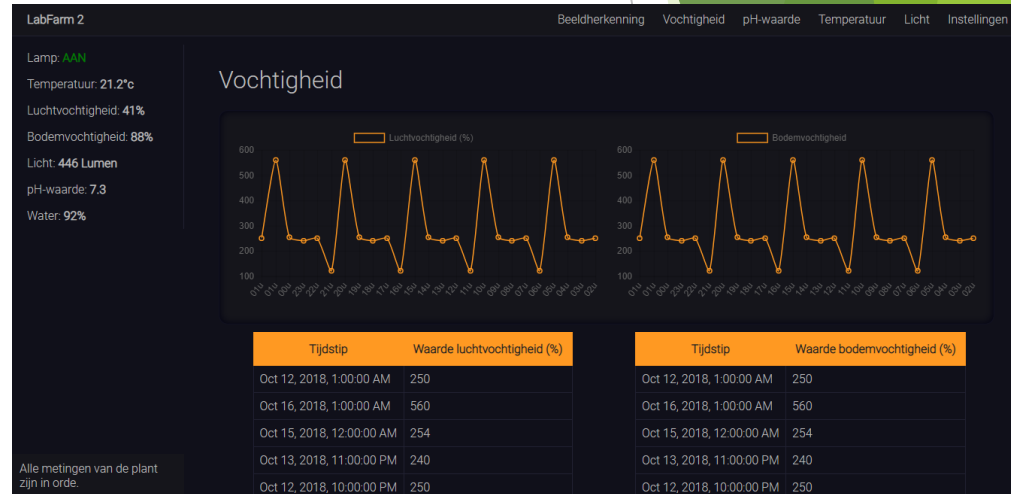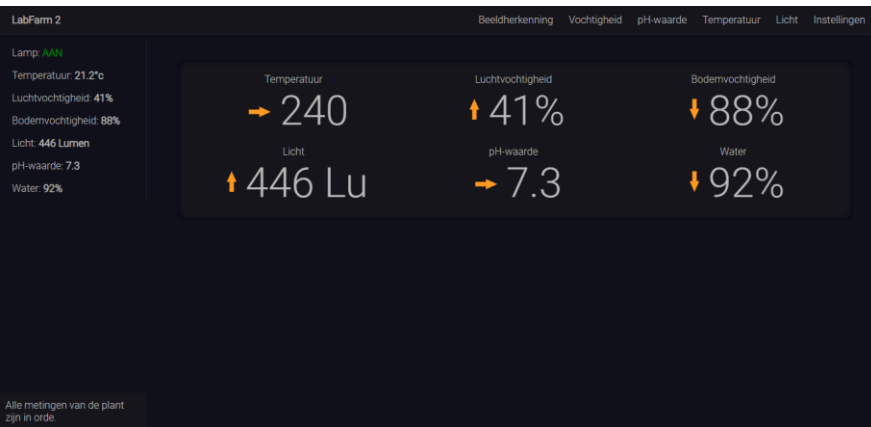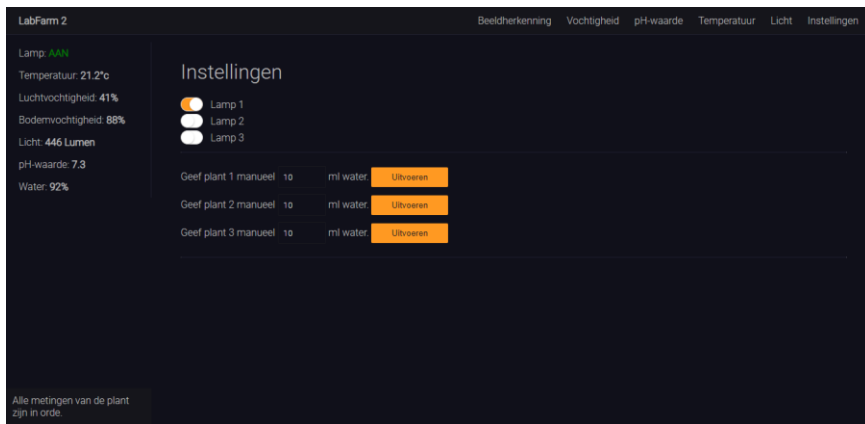Clarifai API

Visuele representatie van alle data

Sensoren

- Alle Sensoren werken behalve waterniveau sensor

- Schaal ontbreekt bij:
    - licht sensor
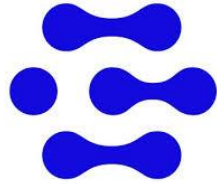   - pH sensor
    - bodemvochtigheid sensor

Dashboard

API verbonden
Grafieken geïmplementeerd
Notificaties links onderaan
Homepage gemaakt met duidelijk overzic

API

Beeldherkenning
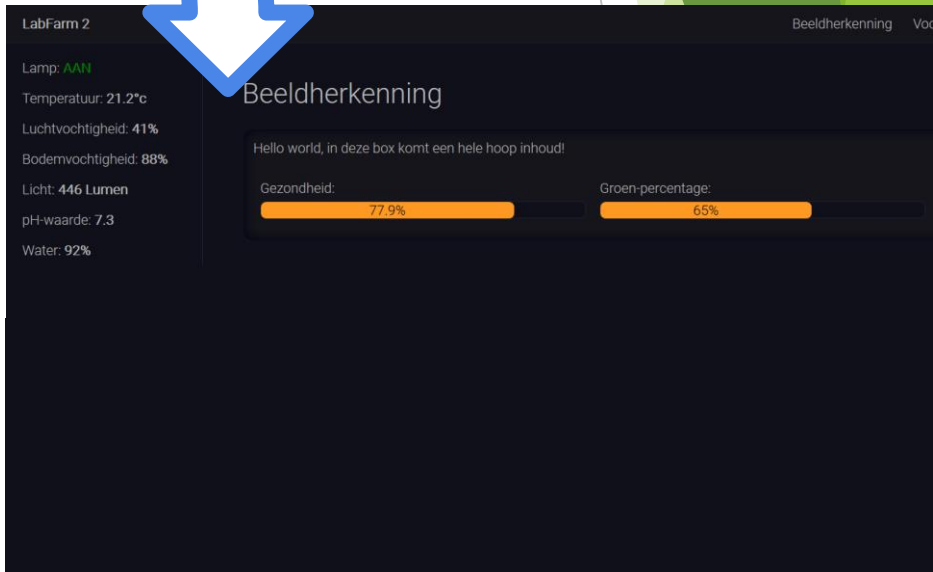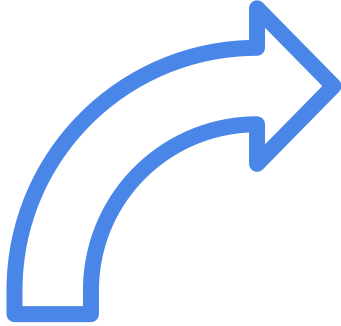
Constructie stappenmotor
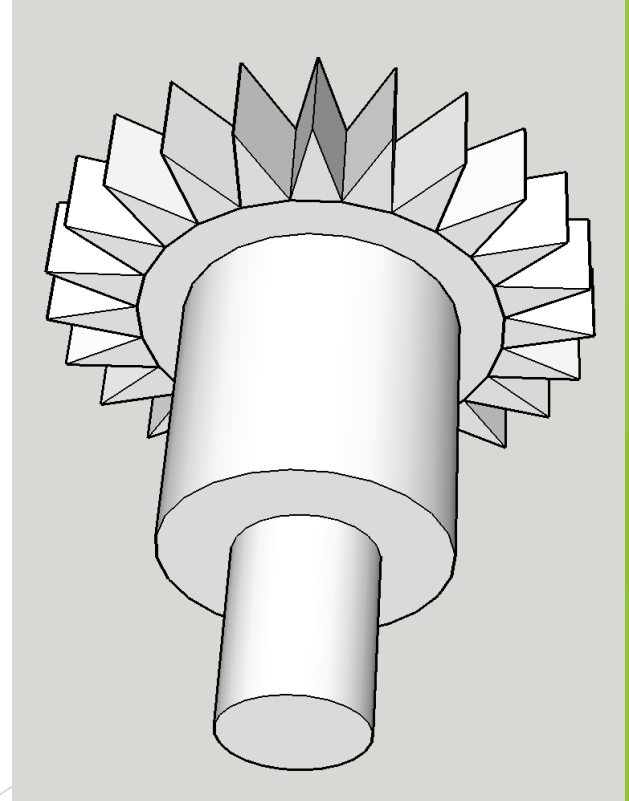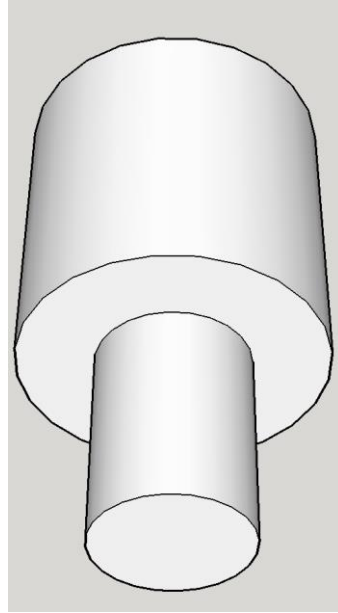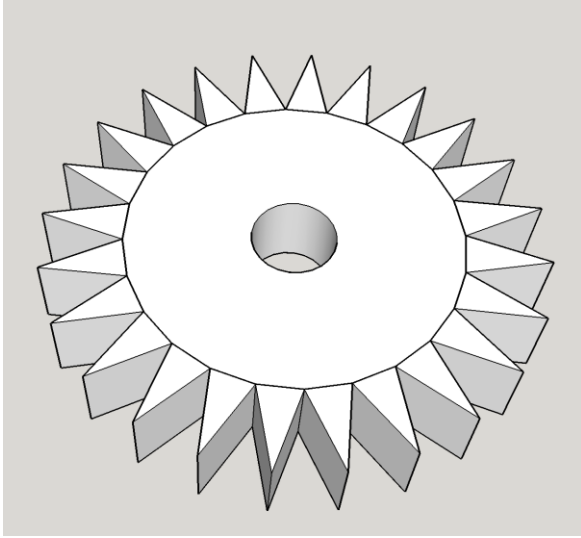
Elektrische schema
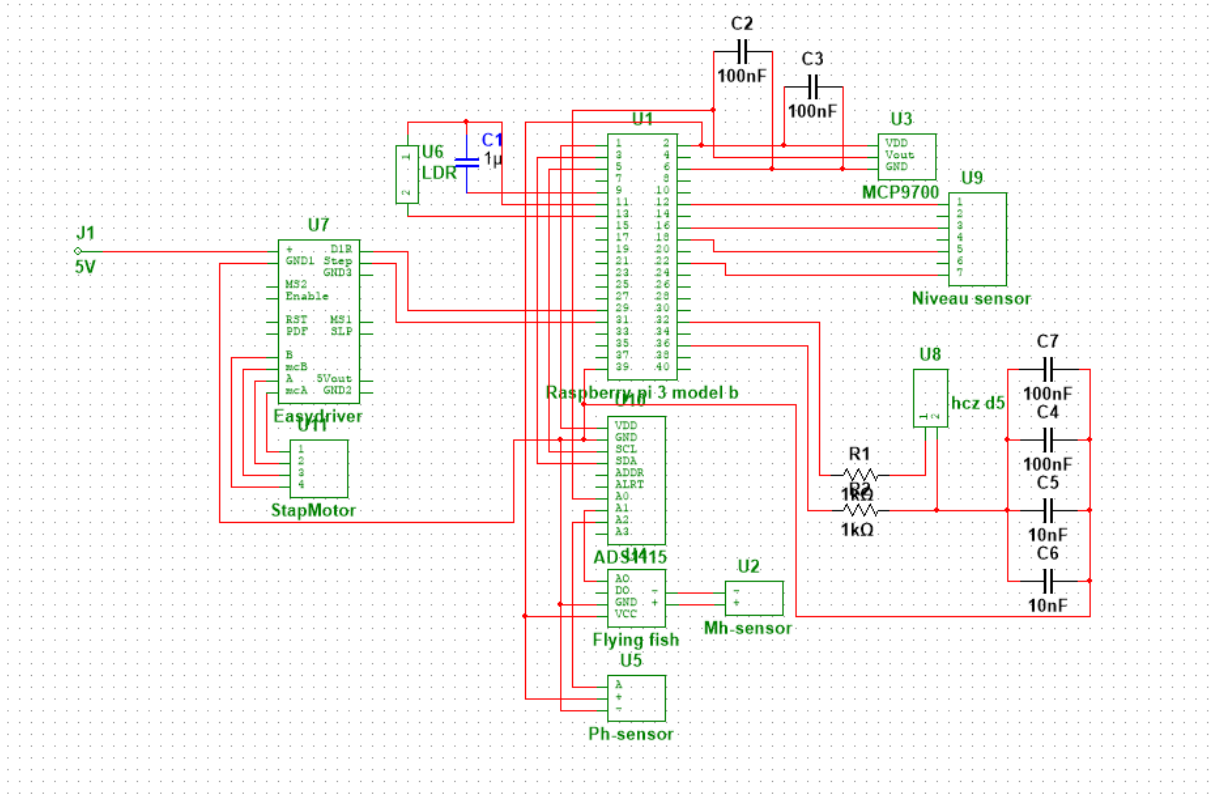
Backup batterij
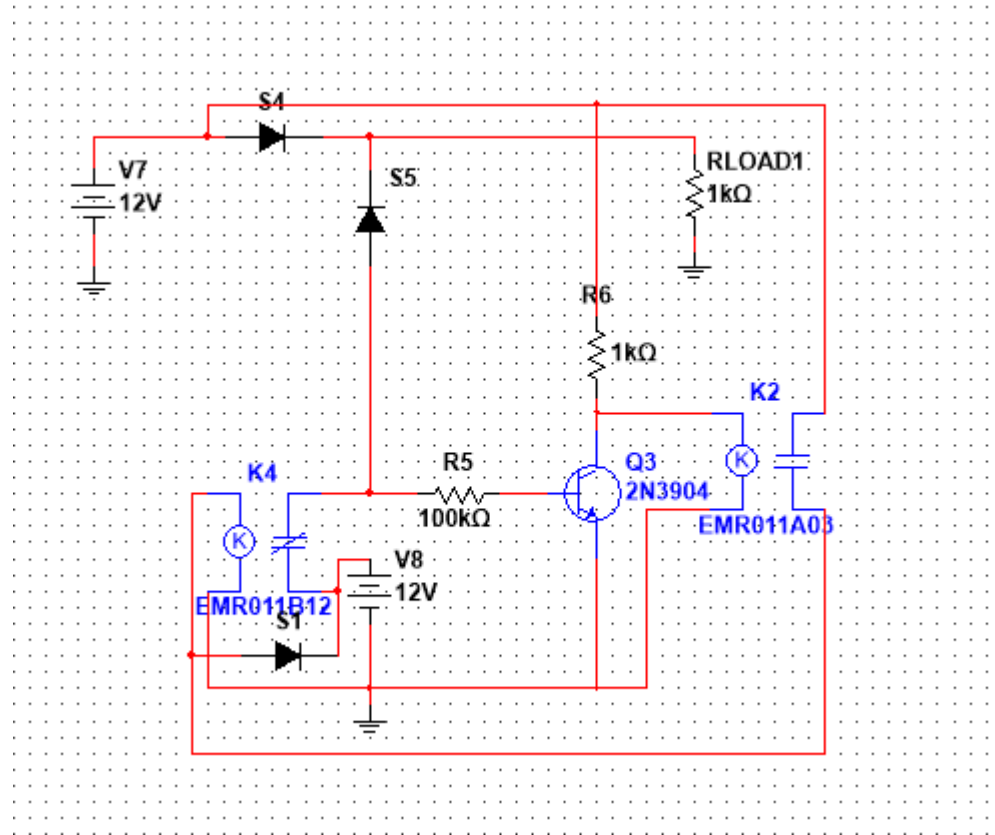
Planning

- Stappenmotor werkend krijgen
- Constructie afwerken (tandwielen + plaatje + stappenmotor)
- Opslaan en ophalen van actuele sensor data
- Finale Elektrische schema
- Eerste PCB design
- Power requirements

Planning Jira

IOT18LF2-85 As a developer i want to make the final elektrische schema	PCB	3
IOT18LF2-34 As a user I want a finished tested version of the PCB design	PCB	5
IOT18LF2-49 As a user I want the components to have the correct power levels	Voeding	2
IOT18LF2-48 As a user I want the controller to be powered by the correct power supply	Voeding	2
IOT18LF2-87 As a developer, i want to assemble the gears, the plate and the steppermotor	Constructie	5
IOT18LF2-77 As a developer, I want to test the steppermotor	Testen	2
IOT18LF2-10 As a user I want to know when I need to refill the water & nutrition reservoir of the plant	Sensoren	2
IOT18LF2-44 As a user I want to know how the water level sensor works	Testen	1
IOT18LF2-86 As a user, I want a connection between the sensors and the dashboard so I can view the sensordata	API	3
IOT18LF2-53 As a developer, I want to store all sensor data	API	5
IOT18LF2-52 As a developer, I want to retrieve all sensor history data	API	2
IOT18LF2-36 As a user I want daily photos of my plant	Beeldherkenning	2
IOT18LF2-56 As a developer I want the photos to be stored in the cloud to save storage	Beeldherkenning	2
IOT18LF2-35 As a user I want to see previous photos of my plant	Beeldherkenning	2
IOT18LF2-33 As a user I want to be able to be able to see the progress the plant has made	Dashboard	2
IOT18LF2-3 As a user I want to receive a notification if a variable is too low	Dashboard	2
IOT18LF2-4 As a user I want to receive a notification if a variable is too high	Dashboard	2
IOT18LF2-32 As a user I want to be able to toggle the lights	Dashboard	2

+ Create issue

18 issues   Estimate 46